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| **gold** | **Physics** | **شعار-القسم** |
| **Heat and temperature** |
| Worksheet-2- |

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| Name: Class: 8 /……........ | |
| Book pages: | |
|  | Date:30-4-2012 |
| 8.17.2 | Core Standard number |
| Know that the amount of heat energy in an object depends on:  Mass of the object  Substance that made the object  Difference temperature of the object | Learning Objectives  Logo + text 2 |

1. Factors that the heat of an object depends on.
2. Consider two objects, A and B, made up of the same substance and have different masses (mass of A is greater than mass of B). Heat A and B till reaching the temperature of 40oC.Which object A or B needs more amount of heat?……………………………………………………………………………………
3. Consider two objects, A and B, made up of different substances and have the same masses (mass of A = mass of B). Heat A and B till reaching the temperature of 40oC.Do the object A or B needs the same amount of heat?

…………………………………………………………………………………………..

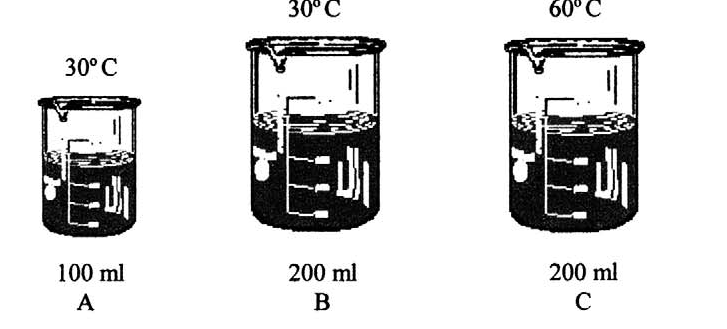
1. Consider two objects, A and B, made up of the same substance, have the same mass (mass of A = mass of B) and the same temperature 20oC. Heat A till reaching the temperature of 40oC and heat B till reaching the temperature of 60oC.Which object A or B needs more amount of heat?

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1. Deduce the factors that the amount of heat of an object depends on:
2. ………………………………………………………………………………………..
3. ………………………………………………………………………………………..
4. ………………………………………………………………………………………..
5. Answer the following questions:
6. In experiment “Rise in Temperature Relative to Time “ the following data for time versus temperature for the water was obtained:

|  |  |
| --- | --- |
| Time  (minutes) | Temperature of water oC |
| 0 (start) | 20 |
| 2 | 40 |
| 4 | 60 |

Which of the following pieces of information about this experiment is **incorrect**?

1. The temperature rise of the water is the same for each interval of 2 minutes.
2. The temperature rise per minute is 10 oC.
3. The water is receiving the same amount of heat energy every minute.
4. The temperature remains 60oC after 4 minutes.
5. Use the diagram below to answer the questions:

In which container is the heat content greatest? ……………………………….

1. In which 2 containers is the motion of molecules the same? ……………...
2. Compare the motion of molecules in container B and C.

………………………………………………………………………………………………………..

1. If you have a cup of water which has a temperature of 50˚ C and you have a swimming pool filled with water at the same temperature, which container has the greatest amount of energy? ……………………………………………………………………………………………………………...

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